

The background of the slide features a faded, light green image of laboratory glassware, including a graduated cylinder and beakers, which are slightly out of focus.

greenUp

2012

Michigan Green Chemistry and Engineering Conference

Driving Sustainable Manufacturing

October 26, 2012

McGregor Hall
Wayne State University, Detroit





Michigan **Green** Chemistry and Engineering Conference

Driving Sustainable Manufacturing

October 26, 2012

Wayne State University, Detroit

The 2012 GreenUp Conference and 4th Annual Michigan Green Chemistry Governor's Awards Ceremony will take place in Detroit – a city fueled by innovation and ripe with opportunities for driving sustainable manufacturing through green chemistry and engineering.

Green chemistry and engineering is contributing to a revitalization of manufacturing by employing less toxic materials and processes in the manufacture and design of the products we use every day. Michigan is positioned to lead this effort and accelerate innovation through catalytic collaborations between our top-notch research universities, chemical companies, experienced designers and engineers, advanced manufacturers, and supply chain.

You don't have to be a manufacturer to benefit from this conference. For researchers, chemists, engineers, industry CEOs, students, educators, entrepreneurs, decision makers, policymakers – anyone interested in Michigan's march toward smart, sustainable growth – this conference is the opportunity to hear from leading experts and share innovative ideas on how we can best “green up” Michigan and drive sustainable manufacturing through green chemistry and engineering!

“I established many contacts that I will utilize in the future.”

– 2011 GreenUp conference attendee

“Most valuable training we have attended in the last year.”

– 2011 GreenUp conference attendee

“The conference was organized very well. The presentations were very informative and there was a great mix of people from different fields for networking. I would definitely attend again.”

– 2011 GreenUp conference attendee

Registration fee is \$120, student rate is \$25.

Register here www.deq.state.mi.us/eforms/greenupregistration.html

Conference Highlights



4th Annual Michigan Green Chemistry Governor's Award Ceremony

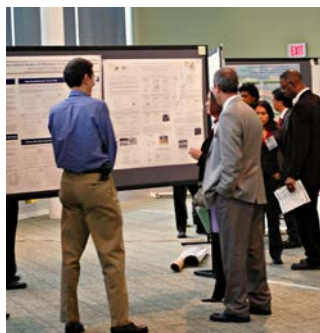
The Green Chemistry Governor's Awards recognize efforts to advance innovation and principles of green chemistry into chemical design, manufacture or use, or promotion activities that support or implement those technologies.

Bob Peoples, Former Director of American
Chemical Society's Green Chemistry Institute



Keynote Speakers

Carrie Majeske, Manager of Product Sustainability
Ford Motor Company



Poster Session

Posters will be on display to help deliver and demonstrate tools, resources, and content that drives green chemistry and engineering concepts into research, academics, industry, and advocacy arenas. Students are eligible for the Michigan Green Chemistry and Engineering Student Poster Award.



2012 Preliminary GreenUp Agenda



7:30 - 8:30	Registration, posters, and continental breakfast		
8:30	Welcome (Art Gallery) - Wayne State University, DEQ Director Dan Wyant		
8:45	Governor's Award Presentation		
9:15	Keynote Speaker - Carrie Majeske, Product Sustainability, Ford Motor Company		
9:45 - 10:00	Morning Break - move to breakout sessions		
10:00 - 11:00	Morning Breakout Sessions I		
	McGregor Room BC Innovation in bio-based fuels and oils Sustainable Next Generation Biofuel Production - <i>Dr. K.Y. Simon Ng, Wayne State University</i> Green Solution for Enhancing Food Crop Production - <i>Dr. C.A. Reddy, Michigan State University</i>	McGregor Room FGH Approaches to Sustainable Manufacturing Multiscale Manufacturing Sustainability: Challenges and Opportunities - <i>Dr. Yinlun Huang, Wayne State University</i> Sustainable Manufacturing at Dow: Designing and Building Processes and Supply Chains for a Sustainable Future - <i>Dawn Shiang, The Dow Chemical Company</i>	McGregor Room J Regulatory and voluntary drivers of green chemistry and toxics reduction Increasing State Regulation of Chemicals as a Driver of Sustainability - <i>AnnMarie Sanford, Pepper Hamilton LLP</i> Safer Chemistry Challenge Program to Reduce Toxic Chemical Use - <i>Angela Miller, National Pollution Prevention Roundtable</i>
11:00 - 11:10	Move to Breakout Sessions		
11:10 - 12:10	Morning Breakout Sessions II		
	McGregor Room BC LCA and public health Consumer Product Exposure in a Life Cycle Assessment Framework - <i>Alexi Ernstoff, University of Michigan</i> Development of a cell-free neurochemical screening battery to predict adverse outcomes in mammals, fish, and birds <i>Jennifer Rutkiewicz, University of Michigan</i>	McGregor Room FGH Green engineering in manufacturing Michigan By-Product Synergy - <i>Christine Spitzley, Tri-County Regional Planning Commission</i> Dow Energy Materials: Developing and Commercializing Energy Storage Solutions in Michigan - <i>Avani Patel, The Dow Chemical Company</i>	McGregor Room J Institutionalizing green chemistry in higher education Greening the Curriculum at The UT School of Green Chemistry and Engineering - <i>Mark R. Mason, The University of Toledo</i> Sustainable Lab Recognition Program at the University of Michigan - <i>Sudhakar Reddy, University of Michigan</i>
12:20 - 1:00	Lunch and Keynote (Art Gallery) Bob Peoples, Former Director of American Chemical Society Green Chemistry Institute		
1:00 - 1:30	Posters and Networking - Student Poster Award		
1:30 - 2:30	Afternoon Breakout Sessions III		
	McGregor Room BC Economic Development and new chemistries in the bio-economy Soy-Based Polymer Building Blocks: A Sustainable Platform for Advanced Coatings <i>Dr. Vijay Mannari, Eastern Michigan University</i> The MSU Bioeconomy Institute and the Emerging Bioeconomy Sector in Michigan <i>Dr. Paul Hunt, Michigan State University</i>	McGregor Room FGH Collaboration in the auto industry Driving Engineering Curriculum to Meet Industry Demand - <i>Matt Shields, State of Michigan, Greg Moss, DENSO, and Carl Anderson, Michigan Technological University</i> Progress for Enhancing Sustainability Best Practices for SAE's Green technology Committee - <i>Andrew Smart, SAE International</i>	McGregor Room J Green chemistry education and organizational integration Advancing Green Chemistry through Education and Research and Development Policy in Higher Education and Beyond - <i>Rich Helling, Dow Chemical</i> The Green Chemistry Commitment - <i>Dalila Kovacs, Grand Valley State University</i>
2:30- 2:40	Break - move to closing panel		
2:40 - 4:00	Closing Panel - Driving Sustainable Manufacturing (Art Gallery) Moderator: Dr. Manish Mehta, National Center for Manufacturing Sciences Speakers: Timothy Weigartz - Ford Motor Company, Rich Helling - Dow Chemical, Herman Yee - DuPont Performance Coatings		
4:00 - 4:15	Closing Remarks		

“What is the power of green chemistry?” The answer is simple. It is a power enabled by awareness. Once you become aware of what green chemistry can do, it is hard to ignore. Green chemistry improves efficiency, reduces waste, reduces energy consumption, and reduces greenhouse gas emissions. Said another way, green chemistry reduces costs. It also reduces risk while helping to ensure the right to operate in communities around the world.

The chemical enterprise is estimated at \$4 trillion. Today, the green chemistry portion of that global figure is only about \$2 billion dollars, much less than 1%. The good news is that this figure is expected to grow to almost \$100 billion by 2020. How is this possible? Simple, business is starting to get green chemistry. As business demands cleaner and safer alternatives, more transparency, and independent third party validation, leaders will set the bar and competitors will have no choice but to step up their game or lose business. *That's the power of green chemistry.*

Bob Peoples, former Director of the American Chemical Society's Green Chemistry Institute

SPONSORS

EMERALD



JADE

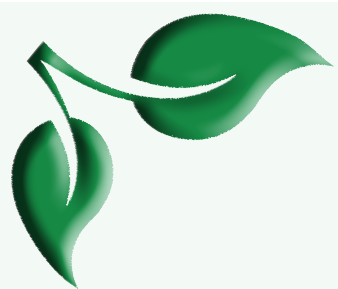


TURQUOISE



MEDIA





Michigan Green Chemistry and Engineering Conference

Driving Sustainable Manufacturing

October 26, 2012

McGregor Hall
Wayne State University, Detroit



October 25th Pre-Conference

Green Chemistry and Sustainable Engineering 101 Workshop

This half-day workshop will provide attendees an understanding on basic principles of green chemistry and sustainable engineering. For more information, see the [workshop flyer](#).

www.michigan.gov/greenup